

## EAST Search History

| Ref # | Hits | Search Query  | DBs                                       | Default Operator | Plurals | Time Stamp       |
|-------|------|---|---|------------------|---------|------------------|
| S1    | 555  | (417/222.2).CCLS.   | US-PGPUB;<br>USPAT                        | OR               | OFF     | 2006/03/22 07:59 |
| S2    | 1305 | (417/269).CCLS.   | US-PGPUB;<br>USPAT                        | OR               | OFF     | 2006/03/21 13:19 |
| S3    | 555  | (417/222.2).CCLS.   | US-PGPUB;<br>USPAT                        | OR               | OFF     | 2006/03/21 14:42 |
| S4    | 221  | S3 and rotary valve   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND              | ON      | 2006/03/21 14:43 |
| S5    | 19   | S3 and "rotary valve"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND              | ON      | 2006/03/21 14:43 |
| S6    | 44   | ("1367914"   "2160978"   "2663492"<br>  "3304886"   "3498227"  <br>"3696710"   "3817660"   "3851669"<br>  "4007663"   "4174191"  <br>"4226572"   "4347778"   "4712982"<br>  "4723891"   "4872814"  <br>"4880361"   "5174728"   "5178521"<br>  "5181834"   "5201261"  <br>"5207078"   "5228841"   "5232349"<br>  "5286173"   "5292233"  <br>"5304042"   "5316446"   "5336056"<br>  "5342178").PN. OR ("5417552").<br>URPN. | US-PGPUB;<br>USPAT;<br>USOCR              | AND              | ON      | 2006/03/21 14:49 |
| S7    | 555  | (417/222.2).CCLS.   | US-PGPUB;<br>USPAT;<br>USOCR              | OR               | OFF     | 2006/03/22 08:00 |
| S8    | 30   | S7 and (Rotary valve and (circle or<br>ellipse or Oval))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND              | ON      | 2006/03/22 08:05 |
| S9    | 3    | S7 and ("Rotary valve" and (circle or<br>ellipse or Oval))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND              | ON      | 2006/03/22 08:05 |
| S10   | 0    | ("2005/0031456").URPN.  | USPAT                                     | AND              | ON      | 2006/03/22 08:13 |
| S11   | 0    | ("2005/0031456").URPN.  | USPAT                                     | AND              | ON      | 2006/03/22 08:13 |
| S12   | 0    | ("2005/0031456").URPN.  | USPAT                                     | AND              | ON      | 2006/03/22 08:13 |
| S13   | 0    | ("2005/0031456").URPN.  | USPAT                                     | AND              | ON      | 2006/03/22 08:22 |
| S14   | 1305 | (417/269).CCLS.   | US-PGPUB;<br>USPAT                        | OR               | OFF     | 2006/03/22 08:24 |

## EAST Search History

|     |        |   |   |     |     |                  |
|-----|--------|---|---|-----|-----|------------------|
| S15 | 19     | S14 and ("rotary valve" and (circle or ellipse or Oval))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND | ON  | 2006/03/22 08:55 |
| S16 | 167    | (91/503).CCLS.  | US-PGPUB;<br>USPAT                        | OR  | OFF | 2006/03/22 09:09 |
| S17 | 284    | (251/209).CCLS.   | US-PGPUB;<br>USPAT                        | OR  | OFF | 2006/03/22 09:10 |
| S18 | 2158   | ((417/222.2) or (417/269) or (91/503) or (251/209)).CCLS.   | US-PGPUB;<br>USPAT                        | OR  | OFF | 2006/03/22 10:43 |
| S19 | 53     | S18 ((rotor\$5 orrotar\$5 or rotat\$4) near7 valve\$5 with(circul\$5 or round or ellip\$5 or ov\$3 or Oblong or Parallelogram or diamond))        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND | ON  | 2006/03/22 12:00 |
| S20 | 160523 | (("251") or ("417") or ("91")).CLAS.  | US-PGPUB;<br>USPAT                        | OR  | OFF | 2006/03/22 12:01 |
| S21 | 1301   | S20 and ((rotor\$5 orrotar\$5 or rotat\$4) near7 valve\$5 with(circul\$5 or round or ellip\$5 or ov\$3 or Oblong or Parallelogram or diamond))    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND | ON  | 2006/03/22 12:02 |
| S22 | 1454   | "137"/\$ ((rotor\$5 orrotar\$5 or rotat\$4) near7 valve\$5 with(circul\$5 or round or ellip\$5 or ov\$3 or Oblong or Parallelogram or diamond))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND | ON  | 2006/03/22 13:31 |
| S23 | 1811   | "137"/\$ ((rotor\$5 or rotar\$5 or rotat\$4) near7 valve\$5 with (circul\$5 or round or ellip\$5 or ov\$3 or Oblong or Parallelogram or diamond)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO | AND | ON  | 2006/03/22 13:32 |
| S24 | 42     | ((rotor\$5 or rotar\$5 or rotat\$4) near4 valve\$5 with (Oblong or Parallelogram or diamond))   | USOCR                                     | AND | ON  | 2006/03/22 14:57 |
| S25 | 206    | (rotar\$5 or rotor\$4 or rotat\$4 or rotation\$3) near3 valve\$5 same (rhomb\$5 or parallelegram\$3 or parallelogram\$4 or diamond\$4)            | USOCR                                     | AND | ON  | 2006/03/22 14:57 |
| S26 | 1      | ("20040258536").PN.   | US-PGPUB;<br>USPAT                        | OR  | OFF | 2006/03/23 15:49 |